ABSTRACT

An example spread spectrum communication system is provided in which a transmission signal is separated into an I-phase component and a Q-phase component. In a complex spreading portion, spreading is performed by using multipliers and adders together with a sequence pattern of 1 and −1 appearing alternately. The outputs from the complex spreading portion are modulated in multipliers using pseudo-random sequences $PN^{(k)}(x)$ allotted for individual users. The baseband signal undergoes waveform shaping by roll-off filters and is modulated through a carrier modulator, then sent to a power amplifier, where it is amplified and transmitted via an antenna.